

REMARKS

In the Office Action mailed November 2, 2005 in the above case, elected claims 1-25 and 30-33 were examined and remain pending. Claims 26-29 have been withdrawn as belonging to non-elected Group II.

Claims 1-25 and 30-33 and dependent claims are rejected under 35 U.S.C. § 112, 1st paragraph as indefinite. Claims 1-19 and 30-33 are rejected as obvious over *Gabetta* (U.S. Patent No. 5,200,186) in view of *Langston* (U.S. Patent No. 4,500,556) and *S.O.R.I.* (GB Patent No. 1,235,379).

Reconsideration and withdrawal of the rejections are respectfully requested in view of the above amendments and the remarks which follow.

A. Indefiniteness Rejection of Claims 1-25 and 30-33 is Addressed

The phrase "substantially depleted levels" of claims 1 and 30 has been deleted in the above amendment and replaced with "decreased levels of said polar non-phenolic compounds as compared to levels of polar non-phenolic compounds in the crude extract." The intended meaning is thereby clarified.

The rejection to the phrase "one or more electronic-withdrawing groups" is respectfully traversed. It is asserted the term would not require undue experimentation by one of skill in the art to which the invention pertains to determine if a particular electron-withdrawing group was a member of the category. Sufficient examples are given, see, e.g., preferred embodiments of claim 2 including F, Cl, Br, and I.

The rejection of claims 21 and 22 has been addressed by deletion of the phrase "substantially free of anthocyanins" and the balance of the sentence in each claim. Withdrawal of the 35 U.S.C. 112, 1st paragraph rejections of claims 1-25 and 30-33 is therefore respectfully requested.

B. Obviousness Rejection of Claims 1-19 and 30-33 over Gabetta in view of Langston and S.O.R.I. is Addressed

The Office Action contends that pending claims 1-25 and 30-33 are obvious over a combination of three references: *Langston*; *Gabetta*; and *S.O.R.I.* The rejection is respectfully traversed, because the combination collectively fails to teach or suggest the use of the "polymer resin that releasably adsorbs said phenols but does not retain said polar non-phenolic compounds,

wherein said substituted resin comprises aromatic rings substituted with one or more electron-withdrawing groups" as claimed in independent claims 1 and 30.

Langston teaches the extraction of anthocyanin pigments from grape pomace by treatment with HSO₃⁻ to form an anthocyanin(HSO₃) complex. The complex is then contacted with a non-ionic adsorbent resin allowing elution of the anthocyanin free of the HSO₃⁻ ions. The preferred resin is a polymer containing poly(vinyl) benzene monomers. This resin does not contain "aromatic rings substituted with one or more electron-withdrawing group", —but only teaches a polymeric resin consisting of unsubstituted aromatic rings—i.e., with no charged moieties. Indeed, the absence of the claimed resin is one reason why the HSO₃⁻ solvent is used by *Langston* as the required solvent system. Thus, *Langston* clearly fails to teach the "aromatic rings substituted with one or more electron-withdrawing groups" of independent claims 1 and 30.

Likewise, *Gabetta* teaches the charging of an anthocyanoside solution on a "non-polar polystyrenic resin." Indeed, to achieve the desired anthocyanoside separation, sodium bisulfite is added. So, like *Langston*, *Gabetta* also fails to teach the use of "aromatic rings substituted with one or more electron-withdrawing group" recited in independent claims 1 and 30.

GB Patent No. 1,235,379 to S.O.R.I teaches anionic resins used in the presence of a strong acidic medium. Anionic resins are different than the "aromatic rings substituted with one or more electron-withdrawing groups" recited in independent claims 1 and 30. If substituted at all, S.O.R.I. are substituted with electron-donating groups. Thus, S.O.R.I. also fails to teach the "aromatic rings substituted with one or more electron-withdrawing groups" recited in independent claims 1 and 30.

So, while the Examiner is correct in stating that each of the references teach the use of ion exchange resins, the resins taught in the references are all different from those claimed. Accordingly, method claims 1 and 30 of the present application are patentably distinguishable over the combination of *Langston*, *Gabetta* and S.O.R.I. Withdrawal of the § 103 rejection of claims 1 and 30 is therefore proper and respectfully requested.

Likewise, dependent claims 2-25 and 31-33 include the distinguishing features of claims 1 and 30 through dependence. Accordingly, claims 2-25 and

31-33 and patentably distinguishable over *Langston*, *Gabetta* and *S.O.R.I.*, for the reasons given above. Withdrawal of the § 103 rejection of claims 2-25 and 31-33 thus proper and respectfully requested.

C. Amended Claim 23 is a Product by Process Claim Reciting a Composition Which is a Different Product than that of *Gabetta*

Amended claim 23 more clearly recites the products of the present invention:

A purified plant material-based composition enriched for phenolic compounds prepared without the addition of sulfites, wherein the composition is an extract containing at least 10% of proanthocyanins and decreased levels of anthocyanins as compared to levels of anthocyanins in the original plant material.

Neither *Langston* nor *Gabetta* nor *S.O.R.I.* teach or suggest this composition. *Gabetta* teaches the addition of bisulfides during processing. This is problematic, as described in a Declaration under 35 C.F.R. § 1.132 of Michael S. Tempesta, Ph.D. enclosed herewith, containing the following statements:

- On information and belief, . . . “the *Gabetta* patent” . . . is owned by *Indena* S.P.A.
- *Indena* currently markets a bilberry extract under its trademark “Mirtoselect®, The Original Bilberry Extract (From *Vaccinium myrtillus* L.). On information and belief, this product is manufactured generally in accordance with one or more of the Examples of the *Gabetta* patent, first involving addition of sodium bisulfite and then requiring removal of sulfur dioxide.
- I recently contacted *Indena* and requested a sample of Mirtoselect®. On information and belief, the sample was shipped to me directly from *Indena*. I submitted the sample to Desert Analytics of Tucson, Arizona, which subsequently reported on a Certificate of Analysis a total sulfur content of 560 ppm.
- In my opinion, the presence of 560 ppm sulfur in the Mirtoselect® sample (a) is indicative of the incomplete removal of the sulfur added during the bilberry extraction process as sodium bisulfite, and (b) is evidence that the composition produced with the *Gabetta* extraction process is different than that produced according to the method claimed in the present invention, in which sodium bisulfite or other forms of sulfur are not added or required.

In view of the different extraction products of the present invention produced without the addition of bisulfites, it is respectfully asserted that claim 23 recites a patentably distinguishable product over *Gabetta*.

The product of amended claim 23 is also distinguishing over *Langston* and *S.O.R.I.*, which each teach the concentrating of anthocyanins. Claim 23 requires that the concentration of anthocyanins in the resulting product be decreased, not concentrated as in *Langston* and *S.O.R.I.*

Amended claim 23 being patentably different from *Gabetta*, *Langston*, and *S.O.R.I.*, allowance of claim 23 is respectfully requested.

D. Petition for 2-Month Extension

Applicant petitions for a 2-Month Extension of Time, extending the due date of the response from February 2, 2006 to April 2, 2006. Enclosed please find a check which includes the \$225.00 small entity 2-month extension fee.

E. Conclusion.

In view of the above amendments, all claims now being in form for allowance, such action is respectfully requested. Should any issues remain, the Examiner is kindly asked to telephone the undersigned.

Respectfully submitted,



Carol W. Burton, Reg. No. 35,465
Hogan & Hartson L.L.P.
1200 17th Street, Suite 1500
Denver, CO 80202
Telephone: (303) 454-2454
Facsimile: (303) 899-7333

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